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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
Iselin, NJ 08830

EXAMINER	
LEE, CHRISTOPHER E	
ART UNIT	**PAPER NUMBER**
2112	

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/511,022	GRUNER ET AL.	
	Examiner	Art Unit	
	Christopher E. Lee	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *20 December 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4 and 9-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4 and 9-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 December 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Receipt Acknowledgement

1. Receipt is acknowledged of the Amendment filed on 20th of December 2005. Claim 4 has been amended; claims 5-8 have been canceled; and claims 9-12 have been newly added since the CON Non-Final Office Action was mailed on 26th of September 2005. Currently, claims 4 and 9-12 are pending in this Application.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the electrical jack in the claim 10 must be shown or the feature canceled from the claim 10. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 9 and 10 are objected to because of the following informalities:

Substitute "A system" by --The system-- in line 1 of the respective claims 9 and 10.

The claim 10 recites the subject matter "said electrical jack" in lines 4-5. However, it has not been specifically clarified in the claim 10. Therefore, the Examiner presumes that the term "said electrical jack" could be considered as --an electrical jack-- in light of the specification since it is not defined in the claim.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim 10 recites the subject matter "first level converter" in line 2, and its predecessor claim 4 recites the same subject matter "first level converter" in line 4. However, the claim 10 recalls the subject matter "first level converter" in line 4 without clearly designating which one of the two different subject matters "first level converter."

Furthermore, the claim 10 recites the subject matter "second level converter" in line 2, and its predecessor claim 4 recites the same subject matter "second level converter" in line 6. However, the claim 10 recalls the subject matter "second level converter" in line 6 without clearly designating which one of the two different subject matters "second level converter."

Therefore, it fails to clearly point out which one of said two different subject matters is the antecedent basis of the respective recited subject matters in the claim 10, then it makes the claim 10 be indefinite.

The Examiner presumes that the subject matter "first level converter" in the claim 4 could be considered as --level converter in the coupling unit--, and the subject matter "second level converter" in the claim 4 could be considered as --level converter in the mobile data unit--, further, the newly suggested subject matter "level converter in the coupling unit" comprises the subject matters "first level converter", "second level converter," and "third level converter" in light of the specification since it is not clearly pointed out in the claims. Furthermore, the subject matter "data link" in the claim 4 comprises the subject matters "first data configuration link", "second communication link," and "third communication link" in light of the specification since it is not clearly pointed out in the claims. This presumption is for the purpose of claim rejection based on prior art in the instant Office Action.

The Applicants are required to appropriately correct the claims 4 and 10 in order to overcome the claim under 35 U.S.C. 112, second paragraph.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner

to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 4, 9, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art [hereinafter AAPA] in view of Becker [US 6,233,509 B1] and Nishikawa et al. [US 6,587,901 B2; hereinafter Nishikawa].

Referring to claim 4. AAPA discloses a system (i.e., mobile operator control and monitoring system in Fig. 1; See paragraph [0003], lines 1-3) for connecting a mobile data unit (i.e., Device in Fig. 1) to a field bus (i.e., Field bus in Fig. 1; See paragraph [0005], lines 1-4), comprising:

- a mobile data unit (i.e., said Device) connected to the field bus (i.e., said Field bus) via a spur line (i.e., Spur line in Fig. 1) and a line driver (i.e., Line driver in Fig. 1; See paragraph [0005], lines 4-7).

AAPA does not teach a coupling unit connected to the field bus via the spur line and the line driver, wherein signals at an output of the line driver are injected via a level converter in the coupling unit into a data link or are received from the data link; and the mobile data unit receiving the signals via a level converter in the mobile data unit from the data link or injecting the signals into the data link.

Becker discloses a system (i.e., electronic diagnostic system; See Abstract and col. 1, lines 6-7) for connecting a mobile data unit (i.e., test equipment Analyzer 3 of Fig. 1) to a field bus (i.e., CAN bus; See col. 2, lines 54-59), wherein means for separating two components (i.e., said test equipment Analyzer and vehicle on said CAN bus) comprising

- a coupling unit (i.e., Active connector 1 of Fig. 1) connected to the field bus (i.e., said CAN bus) via a spur line (i.e., Conductors 5-8 in Fig. 1) and a line driver (i.e., physical layer Circuit 9 of Fig. 1; See col. 2, line 53 through col. 3, line 1), wherein
    - signals (i.e., unidirectional digital signals) at an output of the line driver (i.e., at an output of said physical layer Circuit; See col. 2, lines 65-67) are injected via a level converter in

the coupling unit (i.e., differential line driver/receiver circuit 11 of Fig. 1) into a data link (i.e., Cable 2 of Fig. 1) or are received from the data link (See col. 3, lines 1-3 and Fig. 1); and

- a mobile data unit (i.e., test equipment Analyzer 3 of Fig. 1) receiving the signals (i.e., said unidirectional digital signals) via a level converter in the mobile data unit (i.e., differential line driver/receiver circuit 12 of Fig. 1; See col. 3, lines 4-9) from the data link (i.e., said Cable) or injecting the signals into the data link (See col. 4, lines 14-22 and Fig. 1).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said means for separating two components, as disclosed by Becker, in said system (i.e., mobile operator control and monitoring system), as disclosed by AAPA, for the advantage of providing the separation of two components, i.e., line driver and field bus controller, such that one of the components, i.e., line driver, is in the connector at one end of the cable and the other component, i.e., field bus controller, is in said mobile data unit (i.e., analyzer) at the other end of a data link (i.e., cable; See Becker, col. 2, lines 29-38).

AAPA, as modified by Becker, does not teach a presence detection circuit providing a presence signal responsive to coupling of the mobile data unit to the coupling unit; and a controller connected to the field bus and connected to the presence detection circuit for receiving the presence signal.

Nishikawa discloses an information processing system (See Fig. 1 and Abstract), wherein

- a presence detection circuit (i.e., connection detection circuit 210 and bus control circuit 211 in Fig. 1) providing a presence signal (i.e., detection signal) responsive to coupling of a mobile data unit (i.e., portable information terminal 100 of Fig. 1) to a coupling unit (i.e., bus connector 207 of Fig. 1; See col. 5, lines 49-55); and
- a controller (i.e., CPU 201 of Fig. 1) connected to a field bus (i.e., internal bus 206 of Fig. 1; said CPU being connected to said internal bus in Fig. 1) and connected to the presence detection

circuit (i.e., said CPU being connected to said connection detection circuit and bus control circuit in Fig. 1) for receiving the presence signal (See col. 5, lines 49-55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said presence detection circuit (i.e., connection detection circuit and bus control circuit), as disclosed by Nishikawa, in said coupling unit (i.e., Active connector), as disclosed by AAPA, as modified by Becker, for the advantage of providing unnecessary of delivering a signal controlling said coupling unit (i.e., bus connection means) from device on said field bus device (i.e., information processing apparatus) to said mobile data unit (i.e., portable electronic equipment), enabling a reduction in the number of data link lines (i.e., transmission lines; See Nishikawa, col. 3, lines 24-28).

Referring to claim 9, Nishikawa teaches

- the presence detection circuit (i.e., connection detection circuit 210 and bus control circuit 211 in Fig. 1) comprises an additional signal line (i.e., signal line 213 of Fig. 1), and
- the controller (i.e., CPU 201 of Fig. 1) can transmit a selection of views (i.e., configuration) to the mobile data unit (i.e., portable information terminal 100 of Fig. 1) via the additional signal line (See col. 3, lines 14-24 and col. 5, line 61 through col. 6, line 8).

Referring to claim 12, AAPA discloses a system (i.e., mobile operator control and monitoring system in Fig. 1; See paragraph [0003], lines 1-3) for connecting a mobile data unit (i.e., Device in Fig. 1) to a field data bus (i.e., Field bus in Fig. 1; See paragraph [0005], lines 1-4), comprising:

- a line driver (i.e., Line driver in Fig. 1) connected to the field data bus for data communication therewith (See paragraph [0005], lines 4-7);

- a first data communication link (i.e., Transmit data in Fig. 1) for communicating data between the mobile data unit and the field data bus (See paragraph [0006]; in fact, the transmitting data from Field bus controller to Line driver in Fig. 1);
- a second data communication link (i.e., Receive data in Fig. 1) for communicating data between the mobile data unit and the field data bus (See paragraph [0006]; in fact, the receiving data from Line driver to Field bus controller in Fig. 1);
- a third data communication link (i.e., Control signal in Fig. 1) for communicating control signals between the mobile data unit and the line driver (See paragraph [0006]; in fact, the transmitting control signal from Field bus controller to Line driver in Fig. 1).

AAPA does not teach first, second, and third line signal level converters connected to the line driver for data communication therewith; the first data communication link connected to the first line signal level converter for communicating data between the mobile data unit and the field data bus; the second data communication link connected to the second line signal level converter for communicating data between the mobile data unit and the field data bus; the third data communication link connected to the third line signal level converter for communicating control signals between the mobile data unit and the line driver; each line signal level converter converting an electrical signal between a short range electrical signal provided to or from the line driver and a longer range electrical signal provided to or from the respective data communication link; the respective data communication links comprising a connecting cable for selectively connecting the mobile data unit to the field data bus.

Becker discloses a system (i.e., electronic diagnostic system; See Abstract and col. 1, lines 6-7) for connecting a mobile data unit (i.e., test equipment Analyzer 3 of Fig. 1) to a field data bus (i.e., CAN bus; See col. 2, lines 54-59), wherein means for separating two components (i.e., said test equipment Analyzer and vehicle on said CAN bus) comprising

- a line driver (i.e., physical layer Circuit 9 of Fig. 1) connected to the field data bus for data communication therewith (See col. 2, line 53 through col. 3, line 1);
- a line signal level converter (i.e., differential line driver/receiver circuit 11 of Fig. 1) connected to the line driver (i.e., said physical layer Circuit) for data communication therewith (See col. 3, lines 1-3 and Fig. 1);
- a data communication link (i.e., Cable 2 of Fig. 1) connected to the line signal level converter (i.e., said differential line driver/receiver circuit) for communicating data between the mobile data unit (i.e., said test equipment Analyzer) and the field data bus (i.e., said CAN bus; See col. 2, line 54 through col. 3, line 9);
- the line signal level converter (i.e., said differential line driver/receiver circuit) converting an electrical signal (i.e., unidirectional digital signal; See col. 2, lines 65-67) between a short range electrical signal (i.e., signals on physical layer Circuit 9 in Fig. 1) provided to or from the line driver (i.e., said physical layer Circuit) and a longer range electrical signal (i.e., signals on Cable 2 in Fig. 1) provided to or from the data communication link (i.e., signal lines in said Cable); and
- the data communication link (i.e., said Cable) comprising a connecting cable for selectively connecting the mobile data unit to the field data bus (i.e., four wires in said Cable for selectively connecting said test equipment Analyzer to said CAN bus in Fig. 1; See col. 3, lines 22-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said means for separating two components, as disclosed by Becker, in said system (i.e., mobile operator control and monitoring system), as disclosed by AAPA, for the advantage of providing the separation of two components, i.e., line driver and field bus controller, such that one of the components, i.e., line driver, is in the connector at one end of the cable and the other component, i.e., field bus controller, is in said mobile data unit (i.e., analyzer) at the other end of a data link (i.e., cable; See Becker, col. 2, lines 29-38).

AAPA, as modified by Becker, does not teach a presence detection circuit providing a presence signal responsive to connection of the mobile data unit to the field data bus via the connecting cable; and a controller connected to the field data bus and receiving the presence signal; wherein the presence detection circuit comprises a digital signal line, and the controller can transmit a selection of views to the mobile data unit via the digital signal line.

Nishikawa discloses an information processing system (See Fig. 1 and Abstract), wherein

- a presence detection circuit (i.e., connection detection circuit 210 and bus control circuit 211 in Fig. 1) providing a presence signal (i.e., detection signal) responsive to connection of a mobile data unit (i.e., portable information terminal 100 of Fig. 1) to a field data bus (i.e., internal bus 206 of Fig. 1) via a connecting cable (i.e., means for connecting between said portable information transmission device and said internal bus of host information processing apparatus 200 in Fig. 1); and
- a controller (i.e., CPU 201 of Fig. 1) connected to the field data bus (i.e., said CPU being connected to said internal bus in Fig. 1) and receiving the presence signal (See col. 5, lines 49-55); wherein
    - the presence detection circuit (i.e., said connection detection circuit and bus control circuit) comprises a digital signal line (i.e., signal line from said CPU to bus control circuit 211 in Fig. 1), and
    - the controller (i.e., said CPU) can transmit a selection of views (i.e., configuration) to the mobile data unit (i.e., said portable information terminal) via the digital signal line (See col. 3, lines 14-24 and col. 5, line 61 through col. 6, line 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said presence detection circuit (i.e., connection detection circuit and bus control circuit), as disclosed by Nishikawa, in said system (i.e., electronic diagnostic system), as disclosed by

AAPA, as modified by Becker, for the advantage of providing unnecessary of delivering a signal controlling said coupling unit (i.e., bus connection means) from device on said field data bus (i.e., information processing apparatus) to said mobile data unit (i.e., portable electronic equipment), enabling a reduction in the number of data link lines (i.e., transmission lines; See Nishikawa, col. 3, lines 24-28).

9. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Becker [US 6,233,509 B1] and Nishikawa [US 6,587,901 B2] as applied to claims 4, 9, and 12 above, and further in view of Price et al. [US 5,920,197 A; hereinafter Price].

Referring to claim 10. AAPA, as modified by Becker and Nishikawa, discloses all the limitations of the claim 10, including

- first, second, and third level converters (i.e., differential line driver/receiver circuit 11 of Fig. 1 of Becker; in fact, said differential line driver/receiver circuit of Becker has been applied to Control signal, Transmit data, and Receive data in Fig. 1 of AAPA, respectively) connected to the line driver (i.e., Line driver in Fig. 1; AAPA) for data communication therewith (See AAPA, paragraph [0005], lines 4-7);
- a first data communication link (i.e., Transmit data in Fig. 1; AAPA) connected to the first level converter (i.e., said differential line driver/receiver circuit for said Transmit data) for communicating data between the mobile data unit and the field bus (See Becker, col. 3, lines 1-3 and Fig. 1);
- a second data communication link (i.e., Receive data in Fig. 1; AAPA) connected to the second level converter (i.e., said differential line driver/receiver circuit for said Receive data) for communicating data between the mobile data unit and the field bus (See Becker, col. 3, lines 1-3 and Fig. 1);

- a third data communication link (i.e., Control signal in Fig. 1; AAPA) connected to the third level converter (i.e., said differential line driver/receiver circuit for said Control signal) for communicating control signals between the mobile data unit and the line driver (See Becker, col. 3, lines 1-3 and Fig. 1); and
- each level converter (i.e., said differential line driver/receiver circuit; Becker) converts an electrical signal (i.e., unidirectional digital signal; See Becker, col. 2, lines 65-67) between a short range electrical signal (i.e., signals on physical layer Circuit 9 in Fig. 1; Becker) provided to or from the line driver (i.e., said physical layer Circuit; Becker) and a longer range electrical signal (i.e., signals on Cable 2 in Fig. 1; Becker) provided to or from the respective data communication link (i.e., signal lines in said Cable; Becker),

with the exception of said each of data communication link being connected via an electrical jack.

Price discloses a system (i.e., electronic device in Fig. 1), wherein

- a data communication link (i.e., communication channel L1-LN in Fig. 1) connected to a level converter (i.e., general purpose device 10 of Fig. 1) via an electrical jack (i.e., connector C1-CN in Fig. 1) for communicating data (See col. 3, line 48 through col. 4, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said electrical jack (i.e., connector), as disclosed by Price, between said data communication links and said level converters, as disclosed by AAPA, as modified by Becker and Nishikawa, for the advantage of allowing easy coupling between said mobile data unit (i.e., video display device) and a device on said field bus (i.e., computer processor; See Price, col. 4, lines 51-53).

10. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Becker [US 6,233,509 B1] in view of Nishikawa [US 6,587,901 B2].

Referring to claim 11, Becker discloses a system (i.e., electronic diagnostic system; See Abstract and col. 1, lines 6-7) for connecting a mobile data unit (i.e., test equipment Analyzer 3 of Fig. 1) to a field data bus (i.e., CAN bus; See col. 2, lines 54-59), comprising:

- a line driver (i.e., physical layer Circuit 9 of Fig. 1) connected to the field data bus (i.e., said CAN bus) for data communication therewith (See col. 2, line 53 through col. 3, line 1);
- a line signal level converter (i.e., differential line driver/receiver circuit 11 of Fig. 1) connected to the line driver (i.e., said physical layer Circuit) for data communication therewith (See col. 2, line 65 through col. 3, line 3);
- a data communication link (i.e., Cable 2 of Fig. 1) connected to the line signal level converter (i.e., said differential line driver/receiver circuit) for communicating data signals between the line signal level converter and the mobile data unit (See col. 3, lines 10-23);
- the line signal level converter (i.e., said differential line driver/receiver circuit) converting a short range electrical signal from the line driver (i.e., signals on said physical layer Circuit in Fig. 1) to a longer range electrical signal on the data communication link (i.e., signals on said Cable in Fig. 1); and
- a connecting cable for the data link (i.e., four wires in said Cable in Fig. 1; See col. 3, lines 22-23).

Becker does not teach the connecting cable being terminated in a plug; a shorter jumper for closing a presence detection circuit when connecting cable is connected to the line signal level converter; and a controller connected to the field data bus and connected to the presence detection circuit via a digital signal line; the controller adapted to transmit a signal to the mobile data unit via the digital signal line.

Nishikawa discloses an information processing system (See Fig. 1 and Abstract), wherein

- a connecting cable for a data link (i.e., means for connecting between portable information transmission device 100 and host information processing apparatus 200 in Fig. 1) terminated in a plug (i.e., connector 209 of Fig. 1; See col. 5. lines 23-26);
- a shorter jumper (i.e., switch for connection detection circuit 210 in Fig. 1) for closing a presence detection circuit (i.e., connection detection circuit 210 and bus control circuit 211 in Fig. 1) when connecting cable is connected to a line signal level converter (i.e., bus connector 207 of Fig. 1; See col. 5, lines 49-55); and
- a controller (i.e., CPU 201 of Fig. 1) connected to a field bus (i.e., internal bus 206 of Fig. 1; said CPU being connected to said internal bus in Fig. 1) and connected to the presence detection circuit (i.e., said CPU being connected to said connection detection circuit and bus control circuit in Fig. 1) via a digital signal line (i.e., signal line from said CPU to bus control circuit 211 in Fig. 1);
- the controller (i.e., said CPU) adapted to transmit a signal (i.e., signal BC in Fig. 1) to a mobile data unit (i.e., portable information terminal 100 of Fig. 1) via the digital signal line (See col. 3, lines 14-24 and col. 5, line 61 through col. 6, line 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said presence detection circuit (i.e., connection detection circuit and bus control circuit), as disclosed by Nishikawa, in said system (i.e., electronic diagnostic system), as disclosed by Becker, for the advantage of providing unnecessary of delivering a signal controlling said coupling unit (i.e., bus connection means) from device on said field data bus (i.e., information processing apparatus) to said mobile data unit (i.e., portable electronic equipment), enabling a reduction in the number of data link lines (i.e., transmission lines; See Nishikawa, col. 3, lines 24-28).

Response to Arguments

11. Applicants' arguments with respect to claims 4 and 9-12 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Robertson et al. [US 6,751,740 B1] disclose method and system for using a combined power detect and presence detect signal to determine if a memory module is connected and receiving power.

Wendt et al. [US 6,577,230 B1] disclose network for data and energy transfer.

Herzog [US 5,081,648 A] discloses current mode data bus digital communications system.

Flanagin et al. [US 6,128,661 A] disclose integrated communications architecture on a mobile device.

Estakhri et al. [US 6,385,667 B1] disclose system and configuring a flash memory card with enhanced operating mode detection and user-friendly interfacing system.

Ptasinski et al. [US 6,363,437 B1] disclose plug and play I^2C slave.

Heutink [US 5,163,048 A] discloses two-wire extended serial bus communications system with collective echoing of data transmitted from peripheral stations.

Lee [US 6,950,610 B2] discloses optical communication interface module for universal serial bus.

Fasold et al. [US 6,302,741 B1] disclose modular connector with DC decoupling and filtering.

13. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E. Lee whose telephone number is 571-272-3637. The examiner can normally be reached on 9:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Christopher E. Lee
Patent Examiner
Art Unit 2112

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